



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,537	02/20/2004	Michael Bulk	THIELK-029XX	7473
28452 7590 11/03/2008 BOURQUE & ASSOCIATES INTELLECTUAL PROPERTY ATTORNEYS, P.A. 835 HANOVER STREET SUITE 301 MANCHESTER, NH 03104				
EXAMINER MOORE, MARGARET G				
ART UNIT 1796		PAPER NUMBER		
MAIL DATE 11/03/2008		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/783,537

Applicant(s)

BULK ET AL.

Examiner

Margaret G. Moore

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 to 19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 to 19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

1. Applicants' filing of an RCE and request for suspension, filed 2/22/08, have been received. Since the three month period of suspension is over, the following office action is issued. Please note that since the claims under consideration are the same as those previously examined, the following office action is comparable to that dated 8/24/07.

2. Claims 1 to 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The language "wherein the organic groups of the condensate... and/or copper or silver colloids" is confusing since it is unclear if the copper or silver colloids are part of the organic group. In other words, it is unclear what the "and/or" modifies. Claim 19 is similarly confusing.

For claim 4, it is confusing for the otoplastic to be a base coating since page 1 of the specification defines otoplastic as a behind the ear device, not a coating.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 5, 10, 11, 13 to 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Niederdraenk et al.

Niederdraenk et al. teach electroacoustic miniature transducers for hearing aids (i.e. a hearing aid component). The transducer is coated with a biofilm inhibiting coating. Paragraph 17 teaches that this coating is an inorganic coating based on a coating compound that includes a hydrolyzate or pre-condensate of one or more hydrolysable compounds having at least one nonhydrolyzable substituent, at least a part of the which include fluorine atoms. This coating may additionally contain copper or silver colloids. This is the same coating composition as found in instant claim 1. This anticipates claims 1, 5, 10 and 11. The bottom of paragraph 15 teaches that the transducers can be made of plastic, meeting claim 2.

For claim 13, note that the drying step in paragraph 18 meets this, while the UV curing step in paragraph 18 meets claim 14. For claims 15 to 18, note that these are product by process limitations and, since the final product per se appears to be the same as that disclosed by Niederdraenk et al., these particular process steps need not be met.

6. Claims 3, 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niederdraenk et al.

Patentees fail to specifically teach silane inorganic compounds but the skilled artisan would have instantly recognized that silanes having hydrolyzable and nonhydrolyzable groups are very commonly used to form coating compositions and such silanes would have been immediately envisioned and obvious to the skilled artisan. In this manner claims 6 and 9 would have been obvious to one having ordinary skill in the art.

For claim 3, Niederdraenk et al. teaches Mylar® as a plastic, but the skill-ed artisan would recognize that any of the plastics commonly used in the art would have been an obvious selection for the transducers of Niederdraenk et al.

7. Claims 1 to 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 100 54 248, as interpreted by the English language equivalent Schiestel et al.

DE 100 54 248 teaches a coating composition that meets that required by the claimed hearing aid or hearing aid component. See for instance the silane (I) on paragraph 14 in Schiestel et al. which meets claim 6, the functional groups taught in paragraph 18, which meet claims 7 and 8, and the fluorinated silane in paragraph 25 which meets claim 9. Paragraph 29 and on teach the addition of a silver compound while paragraph 32 teaches the formation of silver colloids. Paragraph 34 teaches the addition of nanoscale particles. This coating composition is used as a microbicide and can be applied to various medical devices. This differs from that claimed in that DE 100 54 248 does not specifically teach a hearing aid.

As applicants admit in the description or related art, and as is obvious and known to the skilled artisan, hearing aids and hearing aid parts are subject to the build up of microorganisms. As noted supra, the coating composition of DE 100 54 248 is a useful microbicide for medical devices. One having ordinary skill in the art would have been motivated by the teachings in DE 100 54 248 to use the coating composition therein as a coating on a hearing aid or hearing aid device with an expectation of obtaining beneficial microbicide properties. In this manner the instant claims are rendered obvious.

For claims 2 and 3, note page 3 of applicants' specification which admits that polymethacrylate is typically used in the preparation of hearing aids.

8. For each of the above rejections, applicants cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

9. Claims 1 to 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 199 58 336, as interpreted by the English language equivalent Brueck et al.

DE 199 58 336 teaches self crosslinking compositions that meet the composition found on the claimed hearing aid or hearing aid component. See the silane on column 6, line 21, which meets claims 6 and 9. See column 6, lines 36 and on, which teaches the nanoscale particles of claim 12. For claim 8, please see column 8, lines 25 to 32.

This coating composition has water and oil repelling properties, as well as an anti adhesive surface. Column 9 teaches that it can be used to coat medical devices. This does not specifically teach hearing aids.

As applicants admit in the description or related art, and as is obvious and known to the skilled artisan, hearing aids and hearing aid parts are subject to exposure to oils and water from the body and outside elements. In addition, they can get dirty over time. The benefits of coating hearing aids with a known coating composition for medical devices in an effort to improve water and oil repellency, as well as provide anti-adhesive or dirt repelling properties, would have been an obvious to one having ordinary skill in the art. As such the instant claims would have been obvious to the skilled artisan.

For claims 2 and 3, note page 3 of applicants' specification which admits that polymethacrylate is typically used in the preparation of hearing aids.

For claims 10, 11 and 15 to 19, the Examiner notes that it is extremely well known in the art that silver colloids possess antimicrobial properties. The addition of addition of a known antimicrobial compound to the composition of DE 199 58 336 in an effort to improve antimicrobial properties and extend the life of the product would have been prima facie obvious to one having ordinary skill in the art.

10. Claims 1, 5 and 9 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Johannsen et al.

Johannsen et al. teach a hydrophobic layer on a microphone. See for instance paragraph 7. Paragraphs 31 and on teach various silanes used to prepare the hydrophobic layer, including fluorosilanes meeting claim 9.

The basis for this rejection is that it is unclear to the Examiner if the microphone in Johannsen et al. could be considered a hearing aid component or not. Hearing aids contain microphones and it appears that the microphone in Johannsen et al., which is a microstructure, could be used in a hearing aid, thereby meeting the requirement of a hearing aid component. If not anticipated, the skilled artisan would have found the use of the improved microstructure microphone in a hearing aid to have been obvious, in an

effort to obtain the benefits and properties thereof. In this manner the skilled artisan would have found the claimed hearing aid component obvious.

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12. Claims 1 to 19 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 to 29 of U.S. Patent No. 7,279,173. Although the conflicting claims are not identical, they are not patentably distinct from each other because of reasons noted in the previous office action regarding US 10/415,396.

13. Claims 1 to 19 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 98 to 153 of copending Application No. 10/969,008. Although the conflicting claims are not identical,

they are not patentably distinct from each other because it would have been obvious to select a hearing aid or hearing aid device as the article in '008 in an effort to take advantage of the microbial coating properties as they would be desirable in a hearing aid or hearing aid device as claimed.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret G. Moore whose telephone number is 571-272-1090. The examiner can normally be reached on Monday and Wednesday to Friday, 10am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Margaret G. Moore/
Primary Examiner, Art Unit 1796

mgm
10/29/08